

Safety and Health **Management** **Guidelines**

Scope and Application

This guideline applies to all places of employment which are covered by Kentucky Occupational Safety and Health Standards in 29 CFR Parts 1910, 1915, 1917, and 1918. This guideline does not apply to places of employment which are covered by Kentucky Occupational Safety and Health Standards found in 29 CFR Part 1926.

Introduction

The Kentucky Labor Cabinet, Occupational Safety and Health Program has concluded that effective management of worker safety and health protection is a decisive factor in reducing the extent and severity of work-related injuries and illnesses. Effective management addresses all work-related hazards, including those potential hazards which could result from a change in worksite conditions or practices. It addresses hazards whether or not they are regulated by government standards.

We have reached this conclusion in the course of evaluation of worksites in our enforcement program and our consultation program. These evaluations have revealed a basic relationship between effective management of worker safety and health protection and a lower incidence and severity of employee injuries.

Such management also correlates with the elimination or adequate control of employee exposure to toxic substances and other unhealthful conditions.

Our experience in the Consultation Program has also indicated that effective management of safety and health protection improves employee morale and productivity, as well as significantly reducing workers' compensation cost and other less obvious cost of work-related injuries and illnesses.

Through an analysis of public comment received in response to its request and through an earlier review of literature, we have found that the conclusions it has reached from its own experience are supported by a substantial body of expert and practitioner opinion.

Based on this cumulative evidence that systematic management policies, procedures and practices are fundamental to the reduction of work-related injuries and illnesses and their attendant economic costs, the Kentucky Labor Cabinet offers the following guidelines for effective management of worker safety and health protection.

Kentucky OSH urges all employers to establish and to maintain programs which meet these guidelines in a manner which addresses the specific operations and conditions of their worksites.

SAFETY AND HEALTH **MANAGEMENT GUIDELINES**

General

- 1.) Employers are advised and encouraged to institute and maintain in their establishment a program which provides systematic policies, procedures, and practices that are adequate to recognize and protect their employees from occupational safety and health hazards.

In essence, this paragraph states that the end (protection of employees from occupational safety and health hazards) determines the means. The criterion for determining what is needed in a safety and health program at a particular site is: whatever feasible action it takes to protect the workers from the safety and health hazards at that specific site. The form of the safety and health program elements and implementing actions will vary at each site according to the nature of site organization and the nature of the hazards and potential hazards at the site.

- 2.) An effective program includes provisions for the systematic identification, evaluation, and prevention

or control of general workplace hazards, specific job hazards, and potential hazards which arise from foreseeable conditions.

Provisions for identifying and preventing hazards are **systematic**. If not, hazards or potential hazards will be missed and/or preventive controls will break down, and the chance of injury or illness will significantly increase.

General workplace hazards include such conditions as tripping hazards in walking areas and poor illumination. Specific job hazards may relate to the specific conditions in a job, such as exposure to a saw blade, or to the inherent hazardousness of an operation required in the job, such as the removal of jammed material from a point of operation. Potential hazards include such situations as the possibility of exposure to toxic chemicals as a result of a rupture of piping from the impact of a forklift.

- 3.) Although compliance with the law, including specific OSHA standards, is an important objective, an effective program looks beyond specific requirements of law to address all hazards. It will seek to prevent injuries and illnesses, whether or not compliance is at issue.

OSHA and other government standards provide important guidance on the identification and control of hazards, but they are not always enough. Although compliance with the law is an

important objective of and motive for an effective program, we have found that the most successful programs look beyond government standards and legal requirements. They look for other sources of information about hazards, such as the National Electrical Code (NEC), the American Conference of Governmental Industrial Hygienists (ACGIH), and the American National Standards Institute (ANSI); and they use their own seasoned analytical abilities to look for and address hazards not covered by government or other standards. Their motive is to prevent injuries and illnesses and the attendant human and economic costs, whether or not compliance with the law is at issue.

This approach is essential in view of the difficulty that regulatory agencies have in moving quickly to set standards for every possible hazard in the workplace and to revise them when new information becomes available.

- 4.) The extent to which the program is described in writing is less important than how effective it is in practice. As the size of a worksite or the complexity of a hazard increases the need for written guidance increases to ensure clear communication of policies and priorities are consistent and fair application of rules.

We recognize that relatively simple, unwritten policies, practices, and procedures are adequate to address the hazards in many smaller or less hazardous establishments. The more complex and

hazardous an operation is, the more formal (written) and complex the program will probably need to be.

A written program which is revised regularly can clarify policy, create consistency and continuity in its interpretation, serve as a checkpoint whenever there is a question of priority between safety and production, and support fair and equitable enforcement of safe work rules and practices.

Major Elements

An effective occupational safety and health program will include the following four elements. To implement these elements, it will include the actions described in paragraph (c).

1.) Management commitment and employee involvement are complementary. Management commitment provides the motivating force and the resources for organizing and controlling activities within an organization. In an effective program, management regards worker safety and health as a fundamental value of the organization and applies its commitment to safety and health protection with as much vigor as to other organizational purposes. Employee involvement provides the means through which workers develop and/or express their own commitment to safety and health

protection, for themselves and for their fellow workers.

2.) Worksite analysis involves a variety of worksite examinations, to identify not only existing hazards but also conditions and operations in which changes might occur to create hazards. Unawareness of a hazard which stems from failure to examine the worksite is a sure sign that safety and health policies and/or practices are ineffective. Effective management activity analyzes the work and worksite to **anticipate** and prevent harmful occurrences.

3.) Hazard prevention and control are triggered by a determination that a hazard or potential hazard exists. Where feasible, hazards are prevented by effective design of the job site or job. Where it is not feasible to eliminate them, they are controlled to prevent unsafe and unhealthful exposure. Elimination or control is accomplished in a timely manner, once a hazard or potential hazard is recognized.

4.) Safety and health training addresses the safety and health responsibilities of all personnel concerned with the site, whether salaried or hourly. It is often most effective when incorporated into other training about performance requirements and job practices. Its complexity depends on the size and complexity of the worksite, and the nature of the hazards and potential hazards at the site. These paragraphs set forth the areas of managerial practice which are essential to effective safety and health protection. These practices, means, and methods are consistent with those used by employers to achieve other organizational objectives, such as cost control, quality, and productivity. Giving safety and health equal organizational priority in relation to these other

objectives is fundamental to the protection of individual employees and to the effectiveness of the organization itself.

These elements consist of methods historically used to accomplish organizational objectives. They are generic in that they are generally applicable regardless of unique operations or conditions of particular firms. Only the form which they take varies. Though at points they are expressed in the terms of the "hierarchical" organizations most common in American industry (i.e., by reference to "managers," "supervisors," "employees"), they can easily be adapted to other organizational forms or styles of operation. They relate to essential concerns and activities of any organization. It is this basis that we consider them applicable in shipyard employment, marine terminals, and long shoring, as well as general industry.

RECOMMENDED ACTIONS

Management Commitment and Employee Involvement

Each action listed in this section represents the application to occupational safety and health of a key means for organizing, motivating, and controlling activities within an organization.

- 1.) State clearly a worksite policy on safe and healthful work and working conditions, so that all

personnel with responsibility at the site and personnel at other locations with responsibility for the site understand the priority of safety and health protection in relation to other organizational values.

A statement of policy is the foundation of safety and health management. It communicates the value in which safety and health protection is held in the business organization. If it is absorbed by all in the organization, it becomes the basic point of reference for all decisions affecting safety and health. It also becomes the criterion by which the adequacy of protective actions is measured.

- 2.) Establish and communicate a clear goal for the safety and health program and objectives for meeting that goal, so that all members of the organization understand the results desired and the measures planned for achieving them.

A goal and implementing objectives, make the safety and health policy more specific. Communicating them ensures that all in the organization understand the direction it is taking.

- 3.) Provide visible top management involvement in implementing the program, so that all will understand that management's commitment is serious. Actions speak louder than words. If top management gives high priority to safety and health protection **in practice**, others will see and follow. If not, a written or spoken policy of high priority for safety and health will have little credibility, and others will not follow it. Plant managers who wear required personal protective equipment in work areas, perform periodic "housekeeping" inspections, and personally track performance in safety and health

protection demonstrate such involvement.

- 4.) Provide for and encourage employee involvement in the structure and operation of the program and in decisions that affect their safety and health, so that they will commit their insight and energy to achieving the safety and health program's goal and objectives.

Since an effective program depends on commitment by employees as well as managers, it is important for their concerns to be reflected in it. An effective program includes all personnel in the organization-managers, supervisors, and others-in policy development, planning and operations.

This does not mean transfer of responsibility to employees. The Occupational Safety and Health Act of 1970 clearly places responsibility for safety and health protection on the employer. However, employees' intimate knowledge of the jobs they perform and the special concerns they bring to the job give them a unique perspective which can be used to make the program more effective.

Employee participation may take any or all of a number of forms. For instance, the system of notifying management personnel about conditions that appear hazardous serves as a major means of

worksite analysis to identify hazards. Such a system is, however, by itself not sufficient to provide for effective employee involvement. Forms of participation which engage employees more fully in systematic prevention include; (1) inspecting for hazards and recommending corrections or controls; (2) analyzing jobs to locate potential hazards and develop safe work procedures; (3) developing or revising general rules for safe work; (4) training newly hired employees in safe work procedures and rules, and/or training their co-workers in newly revised safe work procedures; (5) providing programs and presentations for safety meetings; and (6) assisting in accident investigations.

Such functions can be carried out in a number of organizational contexts. Joint labor-management committees are most common. Other means include labor safety committees, safety circle teams, rotational assignment of employees to such functions, and acceptance of employee volunteers for functions.

Employee involvement is effective only when the employer welcomes it and provides protection from any discrimination, including unofficial harassment to the employees involved. However, inclusion of employees in one or more of the suggested activities, or in any way that fit the individual worksite and provides an employee role that has impact on decisions about safety and health protection, will strengthen the employer's overall program of safety and health protection.

- 5.) Assign and communicate responsibility for all aspects of the program, so that managers, supervisors and employees in all parts of the organization know what performance is expected of them.

Assignment of responsibility for safety and health protection to a single staff member, or even a small group, will leave other members feeling that someone else is taking care of safety and health problems. **Everyone** in an organization has some responsibility for safety and health. A clear statement of that responsibility, as it relates both to organizational goals and objectives and to the specific functions of individuals, is essential. If all persons in an organization do not know what is expected of them, they are unlikely to perform as desired.

- 6.) Provide adequate authority and resources to responsible parties, so that assigned responsibilities can be met. It is unreasonable to assign responsibility without providing adequate authority, training and resources to get the job done. For example, a person with responsibility for the safety of a piece of machinery needs the authority to shut it down and get it repaired. Needed resources may include adequately trained and equipped personnel and adequate operational and capital expenditure funds.

- 7.) Hold managers, supervisors and employees accountable for meeting their responsibilities, so that essential tasks will be performed. Stating expectations of managers, supervisors, and other employees means little if management is not serious enough to track performance, to reward it when

it is competent and to correct it when it is not. Holding everyone accountable for meeting their responsibilities is at the heart of effective worker safety and health protection.

If management states high expectations for such protection but pays greater attention to productivity or other values, safety and health protection will be neglected.

To be effective, a system of accountability must be applied to everyone, from senior management to hourly employees. If some are held firmly to expected performance and others are not, the system will lose its credibility. Those held to expectations will be resentful; those allowed to neglect expectations may increase their neglect. Consequently, the chance of injury and illness will increase.

- 8.) Review program operations at least annually to evaluate their success in meeting the goal and objectives, so that deficiencies can be identified and the program and/or the objectives can be revised when they do not meet the goal of effective safety and health protection.

A comprehensive program audit is essential periodically to evaluate the whole set of safety and health management means, methods, and processes, to ensure that they are adequate to protect against the potential hazards at the specific worksite. The audit determines whether policies and procedures are implemented as planned and whether in practice they have met the objectives set for the program. It also determines whether the objectives provide sufficient challenge to lead the

organization to meet the program goal of efficient safety and health protection. When either performance or the objectives themselves are found inadequate, revisions are made. Without such a comprehensive review, program flaws and their interrelationship may not be caught and corrected.

Worksite Analysis

The Kentucky Labor Cabinet feels that identification of hazards and potential hazards at a worksite requires an active on-going examination and analysis of work processes and working conditions. Because many hazards are by nature difficult to recognize, effective examination and analysis will approach the work and working conditions from several perspective. Each of the activities recommended in this paragraph represents a different perspective.

The recognition of hazards which could result from changes in work practices or conditions requires especially thorough observation and thought, both from those who perform the work and those who are specially trained for that purpose.

Since such divergence from the routine and familiar is often the occasion for injuries and health hazard exposures to occur, the anticipation of such changes is critical. Identification at a worksite of those safety and health hazards which are recognized in its industry is a critical foundation for safety and health protection. It is general duty of the employer under the Occupational Safety and Health Act of 1970. Successful employers will actively seek the benefit of the experience of others in their industry, through trade associations, equipment manufactures, and other sources.

An effective program does not stop at this point, however. It continually reviews working conditions and operations to identify hazards which have not previously been recognized in the industry.

Implicit in the provision for the surveys, reviews, and analysis recommended in this section is the need for employers to seek competent advice and assistance when they lack needed expertise and to use appropriate means and methods to examine and assess all existing and foreseeable hazards. Personnel who perform comprehensive baseline and update surveys, analyses of new facilities, processes, procedures, and equipment, and job hazard analyses may require greater expertise than those who conduct routine inspections, since the former are conducting a broader and/or deeper review.

Personnel performing regular inspections should, however, possess a degree of experience and competence adequate to recognize hazards in the areas they review and to identify reasonable means for their correction or control. Such competence should normally be expected of ordinary employees who are capable of safely supervising or performing the operations of the specific workplace. Smaller businesses which need assistance in the development of such competence can receive free assistance from a number of sources, including the Kentucky Labor Cabinet, Division of Education and Training and other OSHA-funded projects.

- 1.) So that all hazards are identified, conduct comprehensive baseline worksite surveys for safety and health and periodic comprehensive update surveys. Analyze planned and new facilities, processes,

materials, and equipment and perform routine job hazard analysis.

- A.) A comprehensive baseline survey of the work and working conditions at a site permits a systematic recording of those hazards and potential hazards which can be recognized without intensive analysis. This **baseline** record provides a checklist for the more frequent routine inspections recommended in paragraph 2 of this section. With those hazards under control, attention can be given to the intensive analysis required to recognize less obvious hazards.

Subsequent comprehensive surveys provide an opportunity to step back from the routine check on control of previously recognized hazards and look for others. With the baseline established, these subsequent reviews are more one occasion for focusing more intensive analysis in areas with less obvious hazards. The frequency with which comprehensive examinations are needed depends on the complexity, hazardousness, and changeability of the worksite. Many successful worksites conduct such reviews on an annual or biannual basis.

- B.) Analysis of new facilities, processes, materials, and equipment in the course of their design and early use (sometimes called "change analysis") provides a check against the introduction of new hazards with them.

Effective management ensures that conduct of such analyses during the planning phase, just before their first use, and during the early phases of their use. Numerous specific OSHA standards require inspection of particular equipment, conditions, and activities as a safety precaution prior to operation or use. This guideline makes clear that, in effective safety and health programs, this is applied more broadly to all conditions and activities.

C.) Job hazard analysis is an important tool for more intensive analysis to identify hazards and potential hazards not previously recognized, and to determine protective measures. Through more careful attention to the work process in a particular job, analysts can recognize new points at which exposure to new hazards may occur or at which foreseeable changes in practice or conditions could result in new hazards.

2.) Provide for regular site safety inspections, so that new or previously missed hazards and failures in hazard controls are identified. Once a comprehensive examination of the workplace has been conducted and hazard controls have been established, routine site safety and health inspections are necessary to ensure that changes in conditions and activities do not create new hazards and that hazard controls remain in place and are effective. Routine industrial hygiene monitoring and sampling are essential components of such inspections in many workplaces.

Personnel conducting these inspections also look out for new or previously unrecognized hazards, but

not as thoroughly as those conducting comprehensive surveys.

The frequency and scope of those "routine" inspections depends on the nature and severity of the hazards which could be present and the relative stability and complexity of worksite operations.

- 3.) So that employee insight and experience in safety and health protection may be utilized and employee concerns may be addressed, provide a reliable system for employees, without fear of reprisal, to notify management personnel about conditions that appear hazardous and to receive timely and appropriate responses; encourage employees to use the system. A reliable system for employees to notify management of conditions or practices that appear hazardous and to receive a timely and appropriate response serves a dual purpose. It gives management the benefit of many more points of observation and more experienced insight in recognizing hazards or other symptoms of breakdown in safety and health protection systems. It also gives employees assurance that their investment in safety and health is worthwhile.

A system is reliable only if it ensures employees a credible and timely response. The response will include both timely action to address any problems identified and a timely explanation of why particular actions were or were not taken.

Since the employer benefits from employee notices, effective management will not only guard against reprisals to avoid discouraging them but will take positive steps to encourage their

submission.

- 4.) Provide for investigation of accidents and "near miss" incidents, so that their causes and means for their prevention are identified. Accidents and incidents in which employees narrowly escape injury, clearly expose hazards. Analysis to identify their causes permits development of measures to prevent future injury or illness. Although a first look may suggest that "employee error" is a major factor, it is rarely sufficient to stop there. Even when an employee has disobeyed a required work practice, it is critical to ask, "Why?" A thorough analysis will generally reveal a number of deeper factors, which permitted or even encouraged an employee's action. Such factors may include a supervisor's allowing or pressuring the employee to take short cuts in the interest of production, inadequate equipment, or a work practice which is difficult for the employee to carry out safely. An efficient analysis will identify actions to address each of the casual factors in an accident or "near miss" incident.

- 5.) Analyze injury and illness trends over time, so that patterns with common causes can be identified and prevented. A review of injury experience over a period of time may reveal patterns of injury with common causes which can be addressed. Correlation of changes in injury experience with changes in safety and health program operations, personnel, and production processes may help to identify causes.

Hazard Prevention and Control

Effective management prevents or controls identified hazards and prepares to minimize the harm from job-related injuries and illnesses when they do occur.

- 1.) Establish procedures so that all current and potential hazards, however detected, are corrected or controlled in a timely manner using the follow measures:
 - (A) Engineering techniques where feasible and appropriate;
 - (B) Procedures for safe work which are understood and followed by all affected parties, as a result of training, positive reinforcement, correction of unsafe performance, and, if necessary, enforcement through a clearly communicated disciplinary system;
 - (C) Provision of personal protective equipment; and
 - (D) Administrative controls, such as reducing the duration of exposure.

Hazards, once recognized, are promptly prevented or controlled. Management action in this respect determines the credibility of its safety and health management policy and the usefulness of its entire program.

An effective program relies on the means for prevention or control which provides the best feasible protection of employee safety and health. It regards legal requirements as a minimum. When there are alternative ways to address a hazard, effective managers have found that involving employees in discussions of methods can identify useful prevention and control measures, serve as a means for communicating the rationale for decisions made, and encourage employee acceptance of the decisions.

When safe work procedures are the means of protection, ensuring that they are followed becomes critical. Ensuring safe work practices involves discipline in both a positive sense and a corrective sense. Every component of effective safety and health management is designed to create a disciplined environment in which all personnel act on the basis that worker safety and health protection is a fundamental value of the organization. Such an environment depends on the credibility of management's commitment to safety and health protection, through evidences of direct management involvement in safety and health matters, inclusion of employees in decisions which affect their safety and health, rigorous worksite analysis to identify hazards and potential hazards, stringent prevention and control measures, and thorough training.

In such an environment, all personnel will understand the hazards to which they are exposed, why the hazards pose a threat, and how to protect themselves and others from the hazards. Training for the purpose is reinforced by encouragement of attempts to work safely and by positive recognition of safe behavior.

If, in such a context, an employee, supervisor, or manager fails to follow a safe procedure, it is advisable not only to stop the unsafe action but also to determine whether some condition of the work has made it difficult to follow the procedure or whether some management system has failed to communicate the danger of the action and the means for avoiding it. If the unsafe action was not based on an external condition or a lack of understanding, or if, after such external condition or lack of understanding has been corrected, the person repeats the action, it is essential that corrective discipline be applied. To allow an unsafe action to continue not only continues to endanger the actor and perhaps others; it also undermines the positive discipline of the entire safety and health program. To be effective, corrective discipline must be applied consistently to all, regardless of role or rank; but it must be applied.

Factors which may affect the time required for correction of hazards include:

1) The complexity of abatement technology; (2) the degree of risk; and (3) the availability of necessary equipment, materials, and staff qualified to complete the correction. Because conditions affecting hazard correction and control vary widely, it is impractical for OSHA to recommend specific time limits for all situations. An effective program corrects hazards in the shortest time permitted by the technology required and the availability of needed personnel and materials. It also provides for interim protection when immediate correction is not possible.

2) Provide for facility and equipment maintenance, so that hazardous breakdown is prevented.

Maintenance of equipment and facilities is an especially important means of anticipating potential hazards and preventing their development. Planning, scheduling, and tracking preventive maintenance activities provides a systematic way of ensuring that they are not neglected.

- 3.) Plan and prepare for emergencies, and conduct training and drills as needed, so that the response of all parties to emergencies will be "second nature." Planning and training for an emergency is essential in minimizing the harmful consequences of an accident or other threat if it does occur. If personnel are not so thoroughly trained to react to emergencies that their responses are immediate and precise, they may expose themselves and others to greater danger rather than reduce their exposure. The nature of potential emergencies depends on the nature of site operations and its geographical location. The extent to which training and drills are needed depends on the severity and complexity of the emergencies which may arise.

- 4.) Establish a medical program which includes availability of first aid on site and of physician and emergency medical care nearby, so that harm will be minimized if an injury or illness does occur.

The availability of first aid and emergency medical care are essential in minimizing the harmful consequences of injuries and illnesses if they do occur. The nature of services needed will depend

on the seriousness of injuries or health exposures which may occur. Minimum requirements are addressed in OSHA standards.

Safety and Health Training

Education and training are essential means for communicating practical understanding of the requirements of effective safety and health protection to all personnel. Without such understanding managers, supervisors, and other employees will not perform their responsibilities for safety and health protection effectively.

It is not suggested that elaborate or formal training programs solely related to safety and health are always needed. Integrating consideration of safety and health protection into all organizational activities is the key to its effectiveness. Safety and health information and instruction is, therefore, often most effective when incorporated into other training about performance requirements and job practices, such as management training on performance evaluation, problem solving, or managing change; supervisor's training on the reinforcement of good work practices and the correction of poor ones; and employee training on the operation of a particular machine or the conduct of a specific task.

Each paragraph in this section recommends that the employer **ensure understanding** of safety and health information by employees, supervisors, and managers. The act of training itself is not sufficient to ensure practical comprehension. Some means of verifying comprehension is essential. Formal testing, oral questioning, observation, and other means can be useful. We have found that observing and interviewing employees, supervisors, and managers are the most effective measures for determining their

understanding of what is expected of them in practice. Although there is no fully reliable means for ensuring understanding, effective safety and health management will apply the same diligence with respect to safety and health protection as is applied to ensuring an understanding of other operational requirements, such as time and attendance, production schedules, and job skills.

- 1.) Ensure that all employees understand the hazards to which they may be exposed and how to prevent harm to themselves and others from exposure to these hazards, so that employees accept and follow established safety and health protections. The commitment and cooperation of employees in preventing and controlling exposure to hazards is critical, not only for their own safety and health but for that of others as well. That commitment and cooperation depends on their understanding what hazards they may be expected to, why the hazards pose a threat, and how they can protect themselves and others from the hazards. The means of protection which they need to understand include not only the immediate protections from hazards in their work processes and locations, but also the management systems which commit the organization to safety and health protection and provided for employee involvement in hazard identification and prevention.

The Hazard Communication Standard specifies, for chemical hazards, an employer duty to inform employees about workplace hazards and to provide training that will enable them to avoid work-related injuries or illnesses. Other standards set forth training requirements, as summarized in OSHA Publication 2254, "Training Requirements in OSHA Standards and Training Guidelines."

The rationale for these standards requirements is, however, applicable in relation to all hazards.

Education and training in safety and health protection is especially critical for employees who are assuming new duties. This fact is reflected by the disproportionately high injury rates among workers newly assigned to work tasks. Although some of these injuries may be attributable to other causes, a substantial number are directly related to inadequate knowledge of job hazards and safe work practices. The Bureau of Labor Statistics reports that in 1979, 48 percent of workers injured had been on the job less than one year. ("The New Worker Factor Associated with Occupational Injuries and Illnesses," U.S. Department of Labor, Bureau of Labor Statistics, 1982.) These figures make clear the importance of training employees on the job hazards and safe work practices **before** they assume new duties.

The extent of hazard information which is needed by employees will vary, but include at least: (1) The general hazards and safety rules of the worksite; (2) specific hazards, safety rules, and practices related to particular work assignments; and (3) the employee's role in emergency situations. Such information and training is particularly relevant to hazards that may not be readily apparent to, or within the ordinary experience and knowledge of, the employee.

- 2.) So that supervisors will carry their safety and health responsibilities effectively, ensure that they understand those responsibilities and the reasons for them including:
 - (A) Analyzing the work under their supervision to identify unrecognized potential hazards;

- (B) Maintaining physical protections in their work areas; and
- (C) Reinforcing employee training on the nature of potential hazards in their work and on needed protective measures, through continual performance feedback and, if necessary, through enforcement of safe work practices.

First-line supervisors have an especially critical role in safety and health protection because of their immediate responsibility for workers and for the work being performed. Effective training of supervisors will address their safety and health management responsibilities as well as information on hazards, hazard prevention, and response to emergencies. Although they may have other safety and health responsibilities, those listed in these guidelines merit particular attention.

- 3.) Ensure that managers understand their safety and health responsibilities, as described under the section, "Recommended Actions, Management Commitment and Employee Involvement," so that the managers will effectively carry out those responsibilities.

Because there is a tendency in some businesses to consider safety and health a staff function and to neglect the training of managers in safety and health responsibilities, the importance of managerial training is noted separately.

Managers who understand both the way and the extent to which effective safety and health protection impacts on the overall effectiveness of the business itself are far more likely to ensure that the necessary safety and health management systems operates as needed.

Conclusion

Occupational safety and health experts, Industrial Hygienist, ergonomist, industrial engineers, and other trained individuals believe that at least one-half of all workplace safety and health problems could be reduced or controlled by effective safety and health management. Those experts can learn to anticipate, recognize, and control what might go wrong and alter the tools or the environment to make the job safer.

References

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